08/812,865

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PATENT
Attorney Docket No. 349718
Express Mail Label No.

IN THE UNITED PATENT AND TRADEMARK OFFICE 08/812,865

#5
12.11.97

INFORMATION DISCLOSURE STATEMENT

Applicant: John B. Taylor

For: PLANT FERTILIZER COMPOSITIONS CONTAINING PHOSPHONATE AND PHOSPHATE SALTS AND DERIVATIVES THEREOF

Assistant Commissioner For Patents
Washington, D.C. 20231

OCT 3

Sir:

Applicant is aware of the following references listed on the attached Form PTO 1449, copies of which are enclosed:

CERTIFICATE UNDER 37 CFR 1.8(a) and 1.10

I hereby certify that, on the date shown below, this correspondence is being

☒ deposited with the United States Postal Services in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231 with sufficient postage:

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37 CFR 1.8(a)

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37 CFR 1.10

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D817666.1 9/24/97
September 24, 1997

Chalynda M. Ragan
Chalynda M. Ragan

United States Patents

5,514,200	Lovatt	May, 1996
5,395,418	Vetanovetz, et al.	March, 1995
5,358,958	Greiner, et al.	October, 1994
5,342,835	Pepin, et al.	August, 1994
5,290,791	Greiner, et al.	March, 1994
5,246,953	Greiner, et al.	September, 1993
5,206,228	Collins	April, 1993
5,169,646	Horriere, et al.	December, 1992
5,133,891	Barr, et al.	July, 1992
5,124,344	Greiner, et al.	June, 1992
5,070,083	Barlet	December, 1991
4,935,410	Barlet	June, 1990
4,849,219	Staub, et al.	July, 1989
4,806,445	Horriere, et al.	February, 1989
4,780,458	Hodakowski, et al.	October, 1988
4,755,614	Corbet	July, 1988
4,698,334	Horriere, et al.	October, 1987
4,542,023	Lacroix, et al.	September, 1985
4,139,616	Ducret, et al.	February, 1979
4,119,724	Thizy, et al.	October, 1978
4,075,324	Thizy, et al.	February, 1978
3,798,020	Parham, Jr. et al.	March, 1974
1,935,599	Rippey	November, 1933

Other Prior Art

P. WIDDOWSON and H.P. ROTHBAUM, "The Use of Red Phosphorus as a Fertilizer", September 1964, pgs. 427-445, New Zealand Journal of Science.

GEORGE MALACINSKI and WALTER A. KONETZKA, "Bacterial Oxidation of Orthophosphite", February 1966, pgs. 578-582, Journal of Bacteriology.

CAROL J. LOVATT, "A Definitive Test to Determine Whether Phosphite Fertilization Can Replace Phosphate Fertilization to Supply P in the Metabolism of Hass

on Duke 7", Botany and Plant Sciences, University of CA, Riverside.

H.E. ROBERTSON and P.D. BOYER, "The Biological Inactivity of Glucose 6-Phosphite, Inorganic Phosphites and Other Phosphites", December 9, 1995, pgs. 380-381, Archives of Biochemistry and Biophysics, The MERCK Index, 11th Edition, 1989

FRED ADAMS and JOHN P. CONRAD, Transition of Phosphite to Phosphate in Soils, July 1952, pgs. 361-371.

D.I. GUEST and G. BAMPEIX, "The Complex Mode of Action of Phosphontates", 1990, pgs. 113-115, Australasian Plant Pathology, Vol. 19, No. 4.

B.R. GRANT, R.H. DUNSTAN, J.M. GRIFFTH, J.O. NIERE, and R.H. SMILLIE, "The Mechanism of Phosphonic (Phosphorous) Acid in Phytophthora", 1990, pgs. 115-121, The Australasian Plant Pathology, Vol. 19, No. 4.

R.H. DUNHILL, "The Manufacture and Properties of Phosphonic (Phosphorous) Acid", 1990, pgs. 138-139, Australasian Plant Pathology, Vol. 19, No. 4.

The Lovatt reference discloses concentrated phosphorus fertilizer that comprise a buffered composition of an organic acid and salts thereof and phosphorus-containing acid and salts thereof.

The Vetanovetz, et al. reference discloses solid compounded fertilizers for dissolving into stock solutions to thereby employ area phosphate as phosphorous source.

The Greiner, et al. ('958) reference discloses a process for foliar fungicide treatment and fungicide composition for implementing the process.

The Pepin, et al. reference discloses antifungal agents based on amides containing

a phenyl group.

The Greiner, et al. ('791) reference discloses a fungicidal composition intended for the protection of the multiplication products of cultivated plants, and a method for protecting the multiplication products of plants against fungal diseases using these compositions.

The Greiner, et al. ('953) reference discloses a process for protecting, by curative or preventive means, plant propagation products and plants obtained from them against fungal diseases wherein there is applied a fungicide composition that includes an agriculturally suitable insert carrier and an agriculturally suitable surface-active agent, and to plant propagation products coated with the fungicide composition and to the fungicide composition.

The Collins reference discloses pesticidal compositions based on phosphorous acid monoesters and salts thereof for controlling arthropod pests on plants or habitats thereof.

The Horriere, et al. ('646, '445, and '334) references disclose fungicidal compositions based on alkyl phosphites for protecting vines against disease and a method for same.

The Barr, et al. reference discloses a method of treating plants for frost protection.

The Greiner, et al. ('344) reference discloses compounds containing triazole

groups and use thereof as fungicides.

The Barlet ('083 and '410) references discloses fungicidal composition comprising an aqueous solution of an aluminum salt of alkyl phosphates stabilized with the salt of a weak acid and a strong base which can be used to prevent or treat fungal diseases in plants by spraying, soaking the roots, or injecting into the trunks of shrubs and trees.

The Staub, et al. reference discloses the use of PO_3 derivatives for fungicidal purposes.

The Hodakowski, et al. reference discloses a pesticidal compound of phosphorous esters of cyanohydrins for controlling pests and a method for same.

The Corbet reference discloses a preparation of herbicides containing a phosphonate group from intermediate benzoxazines.

The Lacroix, et al. reference discloses compounds of salts of organophosphorus derivatives as fungicides or bactericides for protecting plants.

The Ducret, et al. reference discloses fungicidal compositions based on phosphorous acid esters and salts thereof.

The Thizy, et al. ('724 and '324) references disclose compositions containing phosphorous acid, inorganic and organic salts thereof for controlling fungus disease in plants and a method for same.

The Parham, Jr. et al. reference discloses sequestration of micronutrient metal ions in liquid phosphatic fertilizer solutions by incorporating a synergistic combination of citrate and polyphosphate salts in the solutions.

The Rippey reference discloses a method of retarding the development of decay due to mold growth on fruits and vegetables after harvesting.

The Widdowson, et al. reference discloses the results of pot experiments with ryegrass and white clover or a phosphorus deficient soil where red phosphorus was used as a fertilizer.

The Malacinski, et al. reference discloses the results of experiments regarding bacterial oxidation of orthophosphite for a variety of bacteria grown on a glucose and salts medium.

The Lovatt reference discloses the results of experiments showing that phosphite is taken up through citrus leaves, and that phosphite can replace phosphate as a source of P for normal metabolism in citrus.

The Robertson, et al. reference discloses experimental results indicating that orthophosphites and orthophosphates are biological strangers, with the presence of the former or its esters, exerting little or no influence on enzyme reactions involving the latter.

The Adams, et al. reference discloses the results of experiments to determine the mechanism of oxidation involved in the soil in the changes of phosphite to phosphate.

The Guest, et al. reference discloses the results of experiments involving the combined effects of direct inhibition of the pathogen and enhanced host defense response in plants upon the application of phosphonates for controlling plant diseases.

The Grant, et al. reference discloses the results of experiments regarding fungi control and growth reduction upon the application of phosphonates.

The Dunhill reference summarizes the chemistry, manufacture and properties of phosphonic acid.

Respectfully submitted,
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